

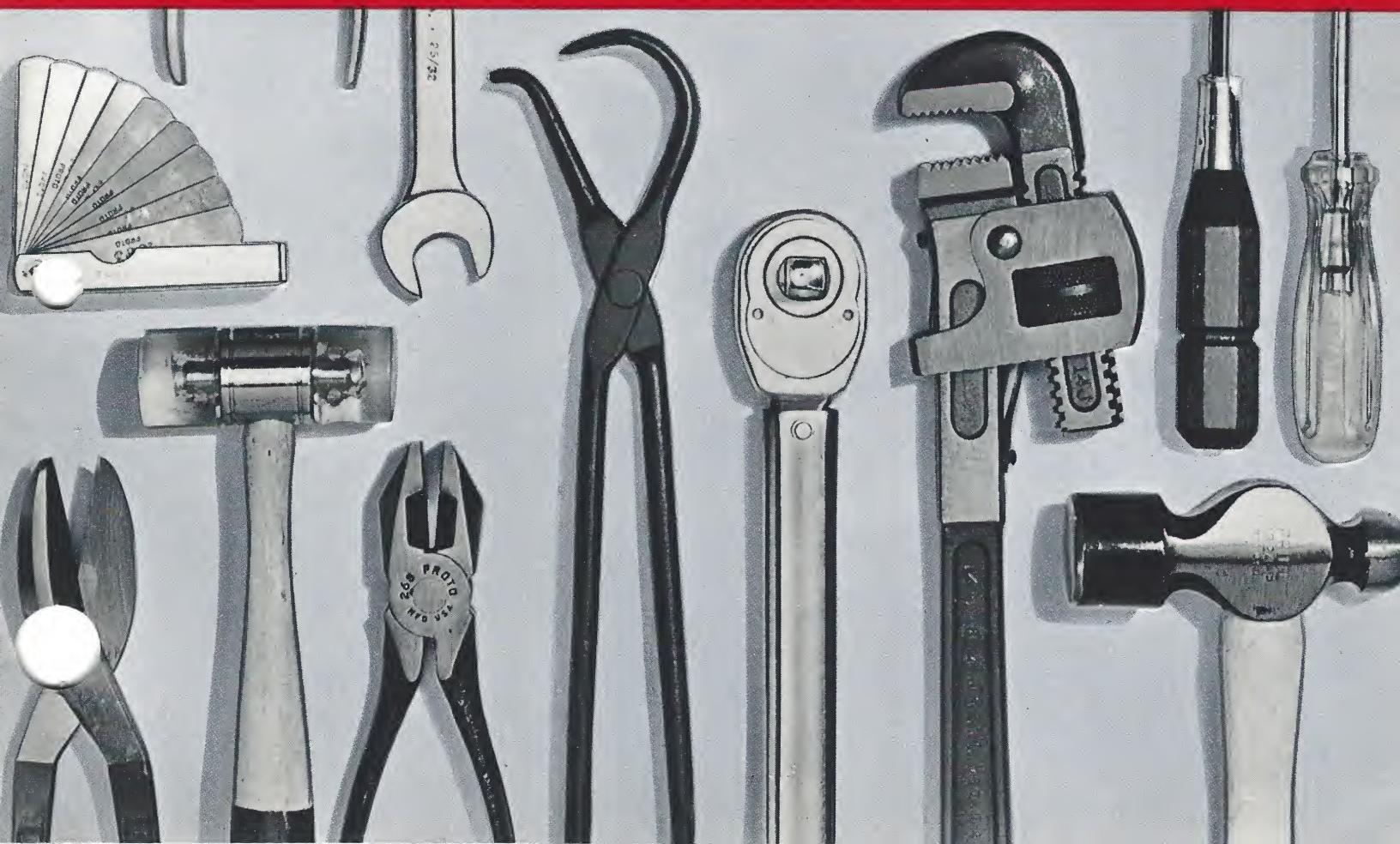


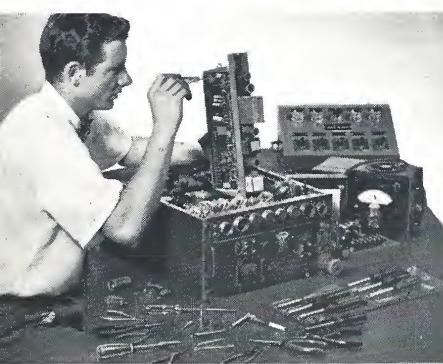
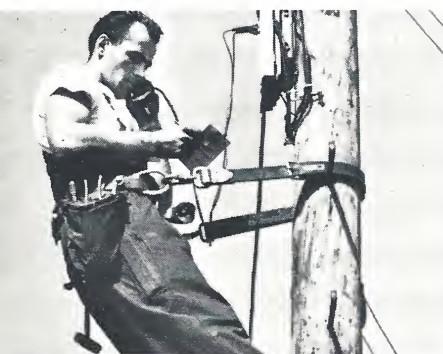
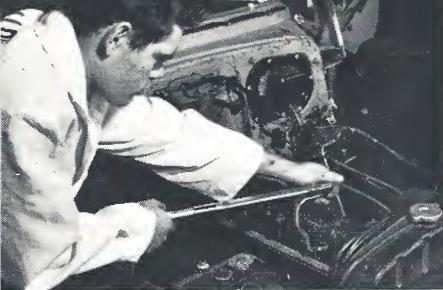
NEW TOOLS

SUPPLEMENT NO. PR62120A
& SUPPLEMENT NO. PR62120B

Supplementing Proto Catalogs No. 6020, 6120 and PR62120
(See Proto Master Catalog For Other Tools)

IN STOCK AT:





SKILLED TOOL USERS in every industry throughout the world prefer PROTO fine quality hand tools for professional work. In this catalog are over 2200 different tool models and sizes, making it possible to select the *right* tool for every job in every field...motors, machinery, transportation, communication, construction, marine, governmental activities, manufacturing, maintenance, plumbing, hobbies, farm and home use.

PROFESSIONAL QUALITY Proto tools are designed and manufactured to exceed rigid requirements of industries and professional tool users.

JOB-TESTED designs assure proper strength, lightness, balance and ease of handling.

DURABILITY of PROTO tools is due to the use of special alloy steels (PROTOLOY, Reg. U.S. Pat. Off.), skillful forging and scientific heat treatment. **MODERN MANUFACTURING METHODS** produce more accurately fitting tools for fast, safe use. The durability and efficiency of PROTO tools make them more **ECONOMICAL** in the long run than ordinary tools...**BETTER BUYS**.

GUARANTEE

PROTO tools are guaranteed to perform the work for which they are designed, and to last as long as is consistent with ordinary wear. Any tool found defective in workmanship or material, and returned to the Factory with transportation charges prepaid, will be replaced, repaired or credited at current prices (as deemed best by us), provided it has been used for the purpose for which the tool was designed. • Power and impact sockets are designed for power equipment, but standard thin-wall sockets are not intended for such use. Special tools not listed in our catalog or price list do not carry the regular guarantee, because they have been manufactured to the original purchaser's specifications. Also, tools that have been ground or altered in any other manner from their original design are not covered by the guarantee.

WHERE TO BUY PROTO TOOLS. Leading automotive, industrial, hardware, implement, plumbing and tool dealers and distributors throughout North America and abroad sell PROTO tools.

SPECIAL TOOLS of many types are designed and produced to order by PROTO for manufacturers and others for special purposes not covered by standard tools listed in this catalog. For information on any special tool problem see your PROTO distributor or write PROTO CONTRACT DEPARTMENT, giving your name, position, company and address.

PRICES, designs, finishes, steel analyses and other specifications are subject to change without notice.

PROTO TOOL COMPANY

DIVISION OF PENDLETON TOOL INDUSTRIES, INC.

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EASTERN PLANT AND WAREHOUSE:

583 ALLEN STREET, JAMESTOWN, NEW YORK 14701 • PHONE 47-1111 TWX: JMTNNY 690

CANADIAN PLANT AND WAREHOUSE:

PROTO TOOLS OF CANADA, LTD., P.O. Box 366, LONDON, ONTARIO PHONE GLADSTONE 1-2921



AMERICAN HARDWARE
MANUFACTURERS ASSOCIATION

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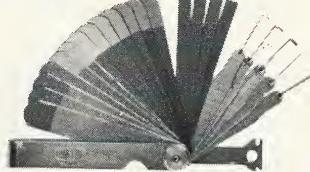
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NO. 000N, MASTER FEELER GAUGE SET


22 straight tempered steel blades accurately step-ground to give .002" tolerance. With a range from .004" to .027", the new No. 000N handles most maintenance and repair requirements for engine valves, bearings, mating parts, setting up cross slides, gibbs, etc.

004/6, 005/7, 006/8, 007/9, 008/10, 009/11, 010/12, 011/13, 012/14, 013/15, 014/16, 015/17, 016/18, 017/19, 018/20, 019/21, 020/22, 021/23, 022/24, 023/25, 024/26, 025/27
Wt. .25

NO. 000P FORD MASTER GAUGE SET


22 different gauges and one spark plug electrode bending tool. All the sizes and types of gauges needed for late model Ford engines. Thirteen step-ground "go-and-no-go" blades give clearance .010/12" to .025/27".

010/12, 011/13, 012/14, 013/15, 014/16, 015/17, 016/18, 017/19, 018/20, 019/21, 021/23, 024/26, 025/27

Four step-ground ignition blades will set points accurately at .015", .016", .020" or .025". For spark plug gaps, three 90° offset blades are provided in .025" to .028" and .035" sizes. Two straight wire blades for voltage regulator setting — in .017" and .030" sizes.
Wt. .25

NO. 000R UNIVERSAL OVERHEAD VALVE GAUGE SET


16 bent feeler gauges from .009" to .027". Each blade is offset at the right angle to protect mechanic's hands from hot manifolds while setting overhead valves on all late model cars. Each blade may be tightened securely in working position. Sizes are etched in each tempered steel blade. All blades are accurately ground and precision tested.
Wt. .20

009, 010, 011, 014, 015, 016, 017, 018, 019, 020, 021, 023, 024, 025, 026, 027

NO. 19 SCRATCH AWL


PLASTIC HANDLE
LENGTH 8 3/4"
6 PER BOX
WT. 0.25 LBS.

Alloy steel blade, comfortable moulded-on plastic handle make this an ideal tool for scribing, sheet metal layout, probing, and many other uses. Should be in every mechanic's tool box.

NO. 204SGT DIAGONAL CUTTING PLIERS


Thin jaws work easily in congested places. Useful in all electrical work. Induction-hardened cutting edges have red plastic "Snip-Grip" safety inserts to hold wire ends. Coil spring prevents finger pinching. Handles covered with red vinyl "Handeze" grips.

LENGTH	WEIGHT	A	B	C
4 1/2"	.18 lb.	.23/32"	9/16"	1 1/32"

NO. 34 1/4 & NO. 34 3/8 OFFSET PHILLIPS SCREWDRIVERS


Short offset on each end for use in confined spaces. Precision milled points for accurate fit, maximum strength and long life. Heat treated, alloy steel assures tough durability. Two popular size points on each tool makes it easy to find wanted size. Finish is rust-proof nickel chrome.

NO.	PHILLIPS TIP NO.	OVERALL LENGTH	WT. LBS.	PKG. PER CTN.
34 1/4	1 & 2	4 3/4"	.19	6
34 3/8	3 & 4	5 1/2"	.31	6

NO. 218A ANGLE NOSE BATTERY PLIER -SLIP JOINT


Thin jaws set at 30° angle. Easily turns terminal nuts. Sharp teeth hold and turn damaged and corroded nuts. Slip joint action handles wide range of nut and bolt sizes. Valuable for all general gripping purposes. Maximum parallel jaw opening 15/16".

LENGTH	WEIGHT	A	B	C
8"	.42 lb.	1 9/32"	1 3/16"	5/16"

SPARE BOLT & NUT NOS. 240-B & 240-N

NO. 137 TUBING EXPANDER


Precision made, hardened alloy steel for swaging $\frac{3}{8}$ ", $\frac{1}{2}$ " and $\frac{3}{4}$ " O.D. copper tubing. Black finish. A must for use on copper tubing in plumbing, industrial maintenance and many other fields. Length 8 7/8".

Wt. 1.18 Lbs.

NO. 252A WIRE HOSE CLAMP PLIER... SLIP JOINT


Installs and removes wire spring tension clamps. New slip joint action grips full range of clamp sizes. Forged of special alloy steel. Polished and chrome plated.

LENGTH	WEIGHT	A	B	C
7 3/4"	.50 lb.	1 1/16"	1 7/16"	25/64"

SPARE BOLT & NUT NOS. 202-B & 240-N



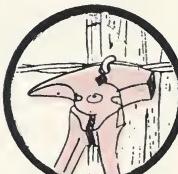
**NO. 269 9-INCH
HIGH LEVERAGE
LINEMAN'S
PLIER—
NEW
ENGLAND
STYLE**

Invaluable for cutting No. 8 and other large wires now used for electric stoves, water heaters, air conditioners, and driers. High quality alloy steel, heat treated for overall uniformity, with cutting edges induction hardened and hand filed for perfect match. All working parts accurately machined. Built-in insulation crusher. Lubricated joint with alloy heat-treated rivet assures smooth action. Rivet offset for increased leverage—up to 50% more than standard 8 inch plier. Overall Length: 9" Weight: 2.0 Lbs.

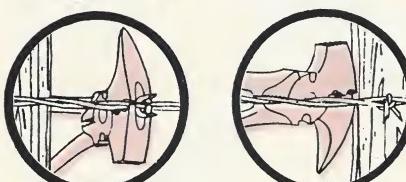


**NO. 270 "DO-IT-ALL"
FENCE PLIER**

SHARP PRONG GETS UNDER DEEPLY BURIED STAPLES



STAPLE GRIPPED TIGHTLY AND PULLED OUT EASILY



HEAD HOLDS BOTH WIRE AND STAPLE WITH FIRM GRIP

GRIP BETWEEN HANDLES FOR STRETCHING WIRE

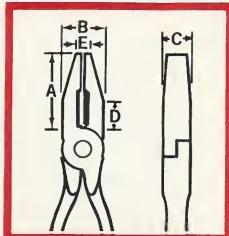
Six tools in one; staple loosening prong, staple puller, hammer head, wire cutter, splicer and stretcher. Hot forged from special analysis tool steel for toughness. Large knurled handles shaped and balanced for comfortable grip and powerful leverage.

Wt. 1.5 lbs.

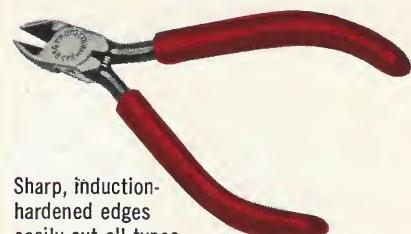
MIGHTY MIDGET ELECTRONIC PLIERS

These matched pliers, designed for television and radio service men, electronics and communications technicians, automotive, aviation mechanics, hobbyists, speed precision work on small objects in tight places. Comfortable, wide-opening handles provide high leverage, fit snugly into the hand, and have good "feel."

All pliers below have "Handeze" plastic handle grips. All but 287G have No. 285S-S Safety Coil Spring, Parco-Lubrite finish.



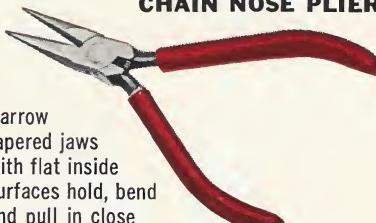
**NO. 285BSG MIDGET
DIAGONAL CUTTING PLIER**



Sharp, induction-hardened edges easily cut all types of small wire, coils, etc. Narrow jaws get into tight places.

LENGTH	WEIGHT	A	B	C	D
4"	.12 Lb.	15/32"	13/32"	1/4"	15/32"

**NO. 282BSG MIDGET
CHAIN NOSE PLIER**



Narrow tapered jaws with flat inside surfaces hold, bend and pull in close quarters. Coil spring adds extra speed to precision work.

LENGTH	WEIGHT	A	B	C	E
43/4"	.13 Lb.	1 1/8"	7/16"	1/4"	1/16"

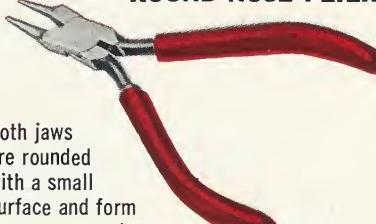
**NO. 286BSG MIDGET
FLAT NOSE PLIER**



Flat narrow jaws get into restricted areas, provide good grip for holding and bending flat stock. Coil spring provides quick release desirable in fine work.

LENGTH	WEIGHT	A	B	C	D
43/4"	.13 Lb.	1 1/8"	7/16"	1/4"	

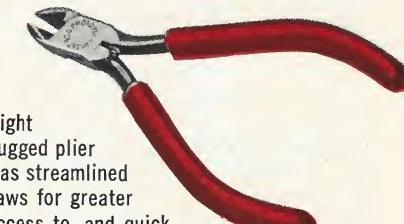
**NO. 283BSG MIDGET
ROUND NOSE PLIER**



Both jaws are rounded with a small surface and form very accurate rings, loops and bends on soft wire. Spring aids precision work in small areas.

LENGTH	WEIGHT	A	B	C	D
4 1/2"	.13 Lb.	1 3/16"	27/64"	1/4"	

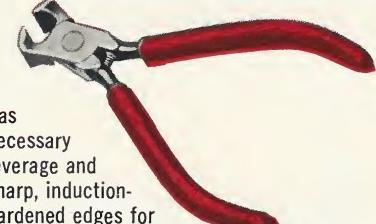
**NO. 287BSG, MIDGET FLUSH
CUTTING DIAGONAL PLIER**



Light rugged plier has streamlined jaws for greater access to, and quick flush cutting in confined areas.

LENGTH	WEIGHT	A	B	C	D
4"	.12 Lb.	15/32"	13/32"	15/64"	15/32"

**NO. 284BSG MIDGET
END CUTTING NIPPER**



Has necessary leverage and sharp, induction-hardened edges for cutting small wires, connectors, bolts, rivets, etc., close to the surface. Coil spring speeds work. Quality alloy steel.

LENGTH	WEIGHT	A	B	C	D
4"	.13 Lb.	5/16"	39/64"	9/32"	33/64"

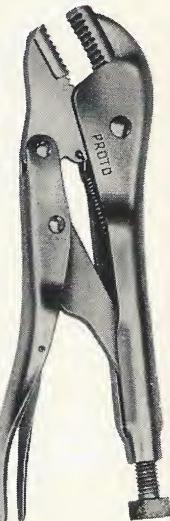
**NO. 287G MIDGET
DIAGONAL PLIERS**



Midget jaws for flush-cutting in confined areas. Wide-flaring handles to fit hand. Special alloy steel. Cutting edges induction-hardened.

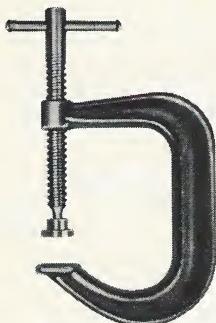
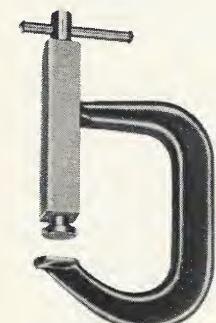
LENGTH	WEIGHT	A	B	C	E
4"	.12 Lb.	15/32"	13/32"	15/64"	15/32"

**NO. 291R AND 292R
LEVER-WRENCH PLIER WITH
QUICK RELEASE**

292R
 Curved Jaws
 Wt. 1.12 lbs.

291R
 Straight Jaws
 Wt. .97 lb.

Four tools in one—a powerful handvice, clamp, pipe wrench and plier. Lever action locks jaws in holding position, with one-handed pressure up to one ton. Quick release removes pressure instantly.

Overall length 10"

EXTRA DEEP THROAT C-CLAMPS

NO. 424

NO. 424S

These new SQUARE THROAT CLAMPS made of drop-forged steel, in the 4" size, provide greater capacity than most 6" clamps. They offer 37% more clamping depth in the 6" and 8" models than is found in other standard "deep throat" clamps in the same size!

The S-series features copper coated spindles with welding shields finished in baked enamel to protect against weld spatter clogging spindle threads. Both series come with Perma-Pad swivel and lifetime lubrication with spindles sealed in Molybdenite. This Square Throat Clamp can do more jobs with fewer and smaller clamps because it was designed with bulky jobs in mind.

NO.	CAPACITY	THROAT DEPTH	SCREW DIA.	WT. LBS.
424	0-4"	4"	3/4	4.
424S	0-4"	4"	3/4	4.312
426	0-6"	5"	3/4	5.812
426S	0-6"	5"	3/4	6.25
428	2"-8"	6"	3/4	7.50
428S	2"-8"	6"	3/4	8.06

NOTE: For spare parts listing see page 87.

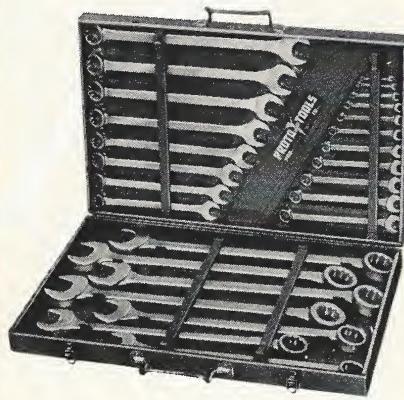

 OVERALL LENGTH,
 HANDLE, 12 1/8"
 WT. 1.6 LBS.


NOTE: For spare parts listing see page 87.

**NO. 1204E THRU 1212E
MIDGET COMBINATION
WRENCHES**


Tiny time-savers in electronics and related fields for miniature assemblies. Comfortable grip handles, thin, narrow heads. Box head is 6 pt. Both openings same size and offset 15°. Finest drop-hammer forged alloy steel, heat treated and hardened for long wear. Openings broached to extremely close tolerances. Heads polished and finished in nickel chrome.

NO.	OPEN. SIZES	LENGTH	WT. LBS.
1204E	1/8"	2 7/8"	.06
1205E	5/32"	2 29/32"	.06
1206E	3/16"	3 1/8"	.06
1208E	1/4"	3 3/8"	.06
1209E	9/32"	3 11/16"	.13
1210E	5/16"	3 3/4"	.13
1211E	11/32"	4"	.13
1212E	3/8"	4"	.13

**NO. 1200-A COMBINATION
WRENCH SET...26 PIECE**


Perfect repair and maintenance set for big machinery and rolling equipment. Saves time. 26 combination wrenches. Openings 1/4" to 2". Each wrench locked in position quickly removed for use. Easily taken to where repairs are needed. A Proto exclusive. Compact steel carrying case (deep red finish). Easily carried from job to job.

NO.	OPENING SIZE	NO.	OPENING SIZE
1208	1/4"	1236	1 1/8"
1210	5/16"	1240	1 1/4"
1212	3/8"	1242	1 5/16"
1214	7/16"	1244	1 3/8"
1216	1/2"	1246	1 7/16"
1218	9/16"	1248	1 1/2"
1220	5/8"	1252	1 5/8"
1222	1 1/16"	1254	1 11/16"
1224	3/4"	1256	1 3/4"
1226	1 3/16"	1258	1 13/16"
1228	7/8"	1260	1 7/8"
1230	1 5/16"	1264	2"
1232	1"	9976	Box
1234	1 1/16"		

WEIGHT OF SET 94.3 LBS.

NO. 1431 BRASS HAMMER

 Aluminum
Handle
WT. 4 1/2 lbs.
LENGTH 11 3/4"

An Indianapolis "500" special, this hammer is used by mechanics to knock off wheels during pit stops. Brass head and aluminum handle are cast together. Head cannot fly off. Handle designed to meet requests of racing mechanics.

**NO. 2003 BRAKE SHOE
RETAINING SPRING TOOL
FOR FALCON, COMET AND
VALIANT**



A "must" for removing and replacing retaining springs on brakes of these three compact cars. Fine alloy steel blade is heat treated entire length, chrome plated and molded into a tough plastic handle. Designed for comfort, the handle is hand fitted with deep flutes to prevent rolling. **EASY TO USE.** Simply push tool into spring and twist to disengage. Keep left hand on clip in back of drum to keep it from dropping as spring is removed.

NO.	SHANK SIZE	BLADE LENGTH	OVER-ALL LENGTH	WT. LBS.
2003	3/16"	2 3/4"	6"	.09

**NO. 2011 CORVAIR BRAKE
ADJUSTING TOOL**



Special modified end adjusts Corvair, Chevrolet, Buick — clears suspension system obstructions. Opposite end adjusts many other Bendix brakes. Hot-formed from special alloy steel. Chrome plated. 9" long. Lots of leverage. Wt. .29 Lb.

**NO. 2012 BRAKE ADJUSTING
TOOL...PONTIAC
TEMPEST**



Designed to clear suspension obstructions on front wheels of Pontiac Tempest. Special angled blade with notches speeds adjustment of front brakes. Standard end for rear wheels and other Bendix-type brakes. Alloy steel, chrome plated. Wt. .28 Lb. Length 9 1/8"

**NO. 2013 BRAKE BLEEDER
TOOL...1/4" & 3/8"**



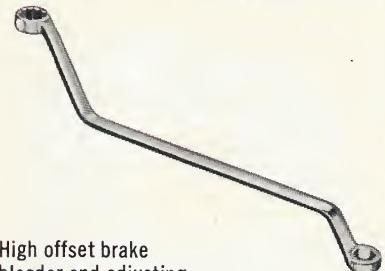
Speeds brake work. 1/4" hex opening for compact cars; 3/8" hex for conventional cars and trucks. Vent holes in socket-end permit line to be bled without removing tool from bleeder screw. Hot forged alloy steel, chrome plated. Wt. .24 Lb. Length 6 3/4"

**NO. 2014 BRAKE SHOE
RETAINING SPRING
TOOL**



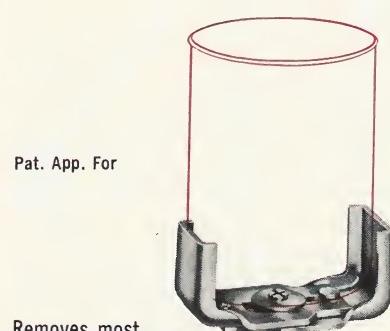
Removes and replaces the dished retaining washer of spring assembly. Cup is knurled for secure grip and notched for washers with ears. Place cup on retaining washer, pressure on handle depresses spring and twisting motion disengages washer for removal. Length 7"

**NO. 2015 CHRYSLER BRAKE
ADJUSTING TOOL**



High offset brake bleeder and adjusting wrench 3/8" and 7/16" hex opening designed for use on late model Chrysler products. The 3/8" end will fit most passenger cars. The 7/16" end is used when adjusting brake shoe eccentric bolts. High offset clears all obstructions, leaving room for hand to fit between tire and wrench. Length 10"

**NO. 2304 OIL FILTER
REMOVAL TOOL**



Pat. App. For

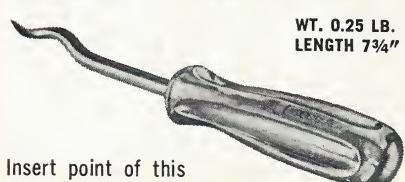
Removes most standard domestic type and many foreign type disposable-type oil filters, quickly! Easily! Grips like a vise. Self-locking, self-adjusting. Keeps hands and arms away from hot manifolds. Wt. .90

**NO. 2305
COTTER PIN TOOL**



Excellent for spreading or extracting cotter pins. Pointed end is inserted in the pin eye and the pin removed by prying. Flat end is used for spreading pin after insertion. Many other uses, such as insertion and removal of packings.

**NO. 2306 COTTER PIN
PULLER...PLASTIC HANDLE**



WT. 0.25 LB.
LENGTH 7 3/4"

Insert point of this handy tool in eye of cotter pin...and pry pin out. Specially heat-treated alloy steel blade is strong and tough. Precision-formed curves give same leverage advantages as a rolling head pry bar. Large handle is comfortable and non-slipping for powerful grip.

**NO. 2338 CARBON SCRAPER
...PLASTIC HANDLE**



WT. 0.50 LB.
LENGTH 11 1/2"
BLADE WIDTH 1"

Narrow blade reaches places other scrapers can't. Blade is angled for efficient scraping. Alloy steel blade can be re-sharpened many times. Nickel chrome finish, moulded-on plastic handle makes this scraper easy to use, easy to keep like new.

**NO. 3751 THRU 3757
COMBINATION
FLARE NUT
WRENCHES**

Designed to slip over tubing on to flare nut. Flare nut with open end. For use on tubing fittings—brake systems, compressors, fluid and gas lines, hydraulic units. Open end for light pressure or speed. Long handles for ample leverage. Thick heads won't damage soft metals. Forged from chrome plated special alloy steel.

NO.	OPEN- ING	HEAD SLOT	HEAD THKNS.	LGTH.	WT. LBS.
3751	3/8"	19 1/4"	7/8"	5 5/8"	.26
3752	7/16"	23 1/4"	15 1/16"	6"	.30
3753	1/2"	25 1/4"	1"	6 3/8"	.34
3754	9/16"	29 1/4"	13 1/32"	67/8"	.40
3755	5/8"	33 1/4"	13 1/16"	75/8"	.47
3756	1 1/16"	37 1/4"	19 1/32"	83/4"	.54
3757	3/4"	41 1/4"	11 1/32"	91/4"	.65

**NO. 3700A
COMBINATION FLARE NUT
WRENCH SET**


Seven wrenches, No. 3751 through 3757 as described on previous page.

- Box end with opening for flare nuts.
- Open end for light pressure or speed.
- Long handles for ample leverage.
- Thick heads that won't damage soft metals.
- Forged from special alloy steel. Wt. 1.94 Lbs.

**NO. 4005 HARMONIC BALANCER
PULLER...2-WAY...3-WAY**

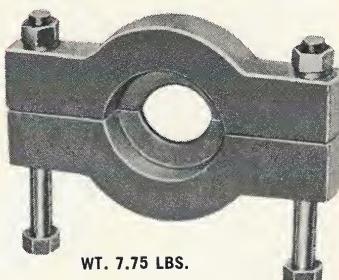
WT. 3.0 LBS.



For late model cars with 2 or 3 tapped holes on harmonic balances, timing gears.

Valuable for many other pulling jobs. Bolt circle range of 5". Detachable tip does not rotate, eliminating shaft damage. $\frac{5}{16}$ " turning hex gives tremendous leverage. Forged alloy steel body and heat treated screw make a tough, heavy-duty tool. Chrome finish to resist corrosion.

NO.	DESCRIPTION	WT. LBS.
4005B	Body	2.5
4005S	Screw	.5
4022T	Tip for 4005S Screw	—
	Cap Screw $\frac{3}{8}$ " x 16" x 3" (2)	—
	Cap Screw $\frac{3}{8}$ " x 24" x (2)	

**NO. 4033 REAR BEARING
PULLER ADAPTER**


WT. 7.75 LBS.

See No. 4100 set for use in pulling axles. →

NO.	DESCRIPTION	WT. LBS.
4033A	Top Plate	3.25
4033B	Bottom Plate	3.25
4033S	Bolt and Nut (2)	0.50 ea.

NO. 4034 AXLE FLANGE PLATE


WT. 3.33 LBS.

See No. 4100 set for use in pulling axles. →

**NO. 4055
REAR AXLE
HAMMER
PULLER SET**

WT. 9.56 LBS.
LENGTH 25"

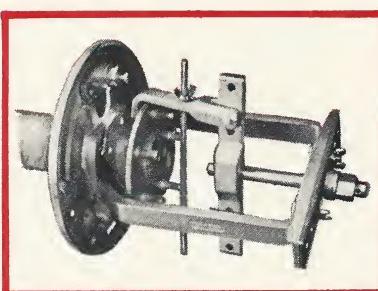
Husky 5½" lb. hammer removes stubborn axles. Alloy steel 4-slot adapter fits four, five, or six-bolt or stud, 5½" circle range, on flange-type axles. Slide hammer is heavy-duty malleable iron. Flange adapter body and T-rod are forged alloy steel. All parts nickel chrome finished.

A must to repair worn bearings, leaking oil seals and rear end damage when rear axle must be removed.

NO.	DESCRIPTION	WT. LBS.
4055B	Puller Body	1.90
4055H	Sliding Hammer	5.30
4055R	T-Handle Rod	2.36

**NO. 4100A REAR AXLE
PULLER SET**


WT. 19.1 LBS.



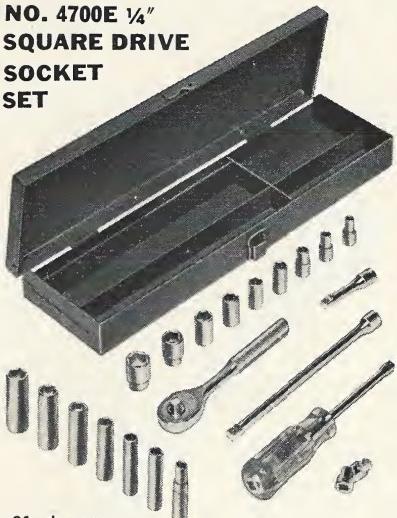
Pulls frozen flange-type or tapered axle on cars or light trucks. Forged alloy steel, properly heat treated, means a tough, strong tool. Large forcing screw gives tremendous pulling power. Eliminate damaging practice of torch heating, and hammering. With #4034 Flange Plate bolted to studs and #4033 Bearing Plate behind bearing, the 4100 Puller is used to push bearing off shaft.

NO. 4100 SET is same as NO. 4100A without NO. 4100MB metal box.

CONTENTS OF 4100A SET

NO.	DESCRIPTION	WT. LBS.
4100JL	Lg. Jaws (2)	2.0 ea.
4100JS	Sm. Jaws (2)	1.0 ea.
4100CAL	Cross Arm, Lg.	2.35
4100CAS	Cross Arm, Sm.	1.5
4100S	Forcing Screw	0.5
4100N	F'ing Screw Nut	0.15
4100W	F'ing Sc. Wash.	0.1
4100B	Thrust Bearing	0.15
4100CS	Clamping Screw	0.25
4100CSN	Clamping Screw Wing Nut (2)	0.05 ea.
4100JB	Jaw Nut and Bolt (2)	0.2 ea.
4100PN	Jaw Pin (2)	0.15 ea.
4100P	Tapered Axle Puller Plate	1.8
4100MB	Steel Box, 12¾" x 12" x 2"	5.5

NO. 4700E 1/4"
SQUARE DRIVE
SOCKET
SET



21 pieces:
9 standard sockets $\frac{1}{16}$ " to $\frac{1}{2}$ ", 7 deep sockets $\frac{3}{4}$ " to $\frac{1}{2}$ ", universal joint, 5" ratchet handle, 2" and 6" extensions, plastic spin handle in metal box. Wt. 2.5 Lbs.

CONTENTS OF 4700 SET

No.	DESCRIPTION
4706	Skt. 6-Pt., $\frac{3}{16}$ " Op.
4707	Skt. 6-Pt., $\frac{7}{32}$ " Op.
4708	Skt. 6-Pt., $\frac{1}{4}$ " Op.
4709	Skt. 6-Pt., $\frac{9}{32}$ " Op.
4710	Skt. 6-Pt., $\frac{5}{16}$ " Op.
4711	Skt. 6-Pt., $\frac{11}{32}$ " Op.
4712	Skt. 6-Pt., $\frac{3}{8}$ " Op.
4714	Skt. 6-Pt., $\frac{7}{16}$ " Op.
4716	Skt. 6-Pt., $\frac{1}{2}$ " Op.
4708L	Dp. Skt. 6-Pt., $\frac{1}{4}$ " Op.
4709L	Dp. Skt. 6-Pt., $\frac{9}{32}$ " Op.
4710L	Dp. Skt. 6-Pt., $\frac{5}{16}$ " Op.
4711L	Dp. Skt. 6-Pt., $\frac{11}{32}$ " Op.
4712L	Dp. Skt. 6-Pt., $\frac{3}{8}$ " Op.
4714L	Dp. Skt. 6-Pt., $\frac{7}{16}$ " Op.
4716L	Dp. Skt., $\frac{1}{2}$ " Op.
4749	Rev. Ratchet, 5"
4759	Extension, 2"
4761	Extension, 6"
4769	Plastic Handle, $6\frac{1}{8}$ "
4770	Universal Joint, $17\frac{1}{2}$ "
4796	Box, $12\frac{1}{4} \times 3\frac{3}{4} \times 1\frac{1}{4}$ "

**1/4" SQUARE DRIVE HEX.
(6 PT.) MIDGET
SOCKET WRENCHES**



No. 4704, 4705
Regular Length



No. 4716
Regular Length



No. 4716L
Long

Made from PROTOLOY® special alloy steel, heat treated, chrome plated, with thin walls to get at hard-to-reach nuts. For all light work where small nuts and bolts may be turned, such as repair of carburetors, distributors, radios, instruments.

No.	Nom. Op.	Tot. Lgth.	Wt. Lbs.
4704	$\frac{1}{8}$ "	$\frac{7}{8}$ "	.01
4705	$\frac{5}{32}$ "	$\frac{7}{8}$ "	.02
4716	$\frac{1}{2}$ "	$\frac{7}{8}$ "	.04
4716L	$\frac{1}{2}$ "	2"	.11

**NO. 4741 HOLLOW HEAD
SCREW SOCKET**



Made from
PROTOLOY®
special alloy steel
chrome plated.

Needed for band adjustment on new Power-Glide automatic transmissions. Handy for turning hollow head screws with $\frac{7}{32}$ " hex opening. Accurately made from alloy steels for strength, scientifically heat treated to insure long service. $\frac{7}{32}$ " hex- $\frac{1}{4}$ " drive hollow head screw socket. Length $1\frac{1}{32}$ ".

Wt. .03 Lb.

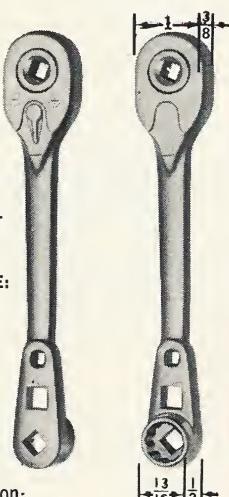
**NOS. 4751, 5251, 5451
RATCHET
SPINNERS**



Fit between ratchet and attachment. Nuts or bolts may be spun fast by hand. Socket or attachment can be turned with the fingers without moving the ratchet. A time saver on many jobs. Close tolerances held on hot broached female square and broached male square. Gripping edge has deep knurling. High quality alloy steel. Heat treated for strength and toughness. Polished, chrome plated.

NO.	DRIVE	HEIGHT	WT. LBS.
4751	$\frac{1}{4}$ "	$\frac{3}{4}$ "	0.15
5251	$\frac{3}{8}$ "	$1\frac{1}{4}$ "	0.25
5451	$\frac{1}{2}$ "	$1\frac{3}{4}$ "	0.28

**NO. 4753 REFRIGERATION
RATCHETING WRENCH**



OPENING IN RATCHET
HEAD: $\frac{1}{4}$ "

OPENINGS IN HANDLE:
 $\frac{3}{16}$ ", $\frac{1}{4}$ ", $\frac{5}{16}$ " and
 $\frac{1}{2}$ " 12 pt. socket

LENGTH: $6\frac{1}{2}$ "

Turns square valve
stems in refrigeration-
and air conditioning,
including automotive. Drop forged alloy steel
construction. Polished OD of head and $\frac{1}{2}$ "
socket. Nickel chrome plate finish. Reversing
lever.

**NO. 4764, 1/4" DRIVE
FLEXIBLE DRIVER
PLASTIC HANDLE**

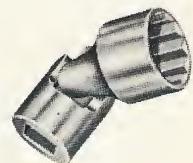
(See page 84 for
No. 5267 $\frac{3}{8}$ " Driver)



Large, strong
cable gets around
corners to drive or
loosen bolts, nuts and
screws. Husky, comfortable
plastic handle allows tremen-
dous turning power. Useful in automotive,
electronic and appliance repair.

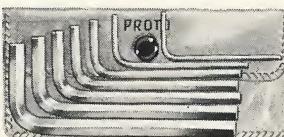
**NO. 4771 THRU 4774, 1/4" DRIVE
12 PT. UNIVERSAL SOCKETS**

Made from PROTOLOY®
special alloy steel
chrome plated. Thin
walls to get at hard-
to-reach nuts. For jobs
requiring turning of
small nuts and bolts
as in repair of carburetors, distributors,
radios, etc.



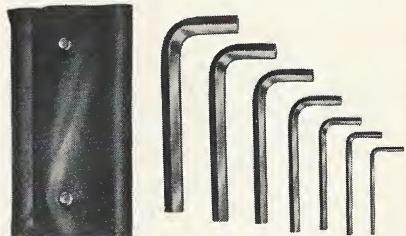
NO.	NOMINAL OPENING	TOTAL LENGTH	WT. LBS.
4771	$\frac{1}{4}$ "	$1\frac{1}{64}$ "	.06
4772	$\frac{5}{16}$ "	$1\frac{1}{4}$ "	.06
4773	$\frac{3}{8}$ "	$1\frac{9}{32}$ "	.13
4774	$\frac{7}{16}$ "	$1\frac{1}{64}$ "	.13

**NO. 4975 METRIC WRENCH SET
...HOLLOW HEAD SCREW**



For use on many kinds of cars, machine
tools, equipment, using metric hollow head
screws. All standard length, Heat-treated
tool steel. Black, Rust-proof finish. For hex
sizes: 2 mm; 2.5 mm; 3 mm; 4 mm; 5 mm;
6 mm; 8 mm. In plastic kit. Wt. .37 Lb.

**NO. 4976 METRIC WRENCH SET
...HOLLOW HEAD SCREW**



Valuable for industrial maintenance-on
machine tools, equipment, foreign cars and
trucks using metric hollow head screws. All
standard length. Heat-treated tool steel.
Black, Rust-proof finish. For hex sizes: 4
mm; 5 mm; 6 mm; 8 mm; 10 mm; 12 mm;
14 mm. In handy plastic kit. Wt. 1.37 Lbs.

**NO. 5024H THRU 5028H
 $\frac{3}{8}$ " DRIVE 6 PT.
 DEEP LENGTH
 SOCKETS**

Made from PROTOLOY® special alloy steel, chrome plated, with thin walls to get at hard-to-reach nuts.


**NO. 5224H, 5226H, 5228H
 $\frac{3}{8}$ " DRIVE 6 PT.
 STANDARD SOCKET**

Made from PROTOLOY® special alloy steel, chrome plated, with thin walls to get at hard-to-reach nuts.



NO.	NOMINAL OPENING	TOTAL LENGTH	WT. LBS.
5224H	$\frac{3}{8}$ "	$1\frac{1}{16}$ "	.09
5226H	$1\frac{3}{16}$ "	$1\frac{3}{16}$ "	.12
5228H	$\frac{7}{8}$ "	$1\frac{3}{16}$ "	.15

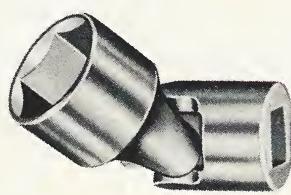
**NO. 5267 $\frac{3}{8}$ "
 FLEXIBLE DRIVER**

(See page 83
 for No. 4764
 $\frac{1}{4}$ " Driver)

Useful in automotive, electronic and appliance repair, this driver fits any $\frac{1}{4}$ " or $\frac{3}{8}$ " socket or attachment. Accurately made from heat-treated alloy steel, it enables you to get around corners and obstructions and turn nuts, bolts and screws that can't be reached with rigid extensions. Spring-loaded square drive holds attachments firmly. Tough plastic handle. Overall Length: $9\frac{1}{8}$ " Weight: .19 Lb.

**NO. 5268 $\frac{3}{8}$ "
 FLEXIBLE
 EXTENSION**

Used with ratchets to turn nuts, bolts or screws not accessible with rigid extensions. It bends, reaches around corners and obstructions. Male and female ends are securely attached. Square drive end has spring-loaded ball check. Finished in chrome. Overall Length: $8\frac{1}{8}$ " Weight: .25 Lb.

**NO. 5272H THRU 5279H
 $\frac{3}{8}$ " DRIVE 6 PT.
 UNIVERSAL SOCKET**


Made from PROTOLOY® special alloy steel, chrome plated, with thin walls to get at hard-to-reach nuts.

NO.	NOMINAL OPENING	OVERALL LENGTH	WT. LBS.
5272H	$\frac{5}{16}$ "	$1\frac{3}{64}$ "	.09
5273H	$\frac{3}{8}$ "	$1\frac{3}{64}$ "	.09
5277H	$\frac{5}{8}$ "	$1\frac{9}{32}$ "	.12
5278H	$1\frac{1}{16}$ "	$1\frac{63}{64}$ "	.13
5279H	$\frac{3}{4}$ "	$2\frac{3}{64}$ "	.15

**NO. 5316H THRU
 5323H
 $\frac{1}{2}$ " DRIVE 6 PT.
 DEEP LENGTH
 SOCKETS**


PROTOLOY® special alloy steel, chrome plated, scientifically heat treated. 6 Per Box.

NO.	NOMINAL OPENING	TOTAL LENGTH	WT. LBS.
5316H	$\frac{1}{2}$ "	$3\frac{1}{4}$ "	.25
5318H	$\frac{9}{16}$ "	$3\frac{1}{4}$ "	.27
5320H	$\frac{5}{8}$ "	$3\frac{1}{4}$ "	.28
5322H	$1\frac{11}{16}$ "	$3\frac{1}{4}$ "	.34
5324H	$\frac{3}{4}$ "	$3\frac{1}{4}$ "	.40
5328H	$\frac{7}{8}$ "	$3\frac{1}{4}$ "	.44
5330H	$1\frac{5}{16}$ "	$3\frac{1}{4}$ "	.52
5332H	1"	$3\frac{1}{4}$ "	.60

**NO. 5426H THRU 5440H
 $\frac{1}{2}$ " DRIVE 6 PT.
 STANDARD SOCKETS**


PROTOLOY® special alloy steel, chrome plated, scientifically heat treated.

NO.	NOMINAL OPENING	TOTAL LENGTH	WT. LBS.
5426H	$\frac{13}{16}$ "	$1\frac{1}{2}$ "	.20
5428H	$\frac{7}{8}$ "	$1\frac{9}{16}$ "	.30
5430H	$1\frac{15}{16}$ "	$1\frac{9}{16}$ "	.33
5432H	1"	$1\frac{1}{16}$ "	.38
5434H	$1\frac{11}{16}$ "	$1\frac{5}{8}$ "	.42
5436H	$1\frac{1}{8}$ "	$1\frac{3}{4}$ "	.50
5438H	$1\frac{3}{4}$ "	$1\frac{3}{4}$ "	.56
5440H	$1\frac{1}{4}$ "	$1\frac{3}{4}$ "	.61

**NO. 5650 $\frac{3}{4}$ " AND 5850 1"
 SQUARE DRIVE PROTOLITE
 ALUMINUM RATCHET
 WRENCHES**


PROTOLITE strength with light weight. Less fatigue
 Handle is shaped for comfortable, firm grip

High strength forged aluminum alloy ratchet: exclusive with, and another first for Proto! They combine light weight with strength — are 43% lighter than steel tools. That means less fatigue. Yet they easily take the tremendous torques demanded of heavy-duty ratchets. Torque performance exceeds Federal specifications for steel ratchets and equals them in strength! This Protolite aluminum alloy is widely used in critical jetliner landing gears and missile parts because of its superior strength and corrosion-resistant characteristics.

Special contoured handle lets you apply heavy load with confidence. Standard Proto alloy steel ratchet mechanism and drive give extra long life.

NO.	DESCRIPTION	DRIVE	LENGTH	WEIGHT
5650	Reversible ratchet	$\frac{3}{4}$ "	$19\frac{3}{4}$ "	3.5 lbs.
5850	Reversible ratchet	1"	$25\frac{1}{2}$ "	7.25 lbs.

NOTE: For spare parts listing see page 87.

**NO. 5669 $\frac{3}{4}$ " AND 5869 1"
 SQUARE DRIVE PROTOLITE
 ALUMINUM HINGE HANDLE**


Adding to PROTO's long line of firsts are these forged aluminum hinge handles. They are 28% lighter than steel, exceed government strength requirements of comparable steel drive sizes by more than 100%. Does more demanding jobs with less fatigue. Unique design provides necessary friction to hold plug firm in any position.

Working with the ProtoLite Hinge Handle is made easy because of perfect balance coupled with a knurled handle that provides for a powerful two hand grip.

NO.	DESCRIPTION	DRIVE	LENGTH	WEIGHT
5669	Hinge handle	$\frac{3}{4}$ "	$21\frac{1}{2}$ "	2.75 lbs.
5869	Hinge handle	1"	26"	5.75 lbs.

**NO. 6006M $\frac{3}{8}$ " AND 6016M
 $\frac{1}{2}$ " DRIVE METRIC**

**TORQUE
LIMITING
WRENCHES**

Built-in ratchet head adds convenience of ratcheting to torque operation

No projecting scales or accessories. Less weight and fatigue

Automatic torque-limiting release signals completion of operation — no sounds to listen for — no dials to watch — resets automatically

Enclosure of precision spring and other working parts maintains accuracy and prevents damage

Micrometer-type adjustment, deep marking, easy to read

Lock holds exact torque setting

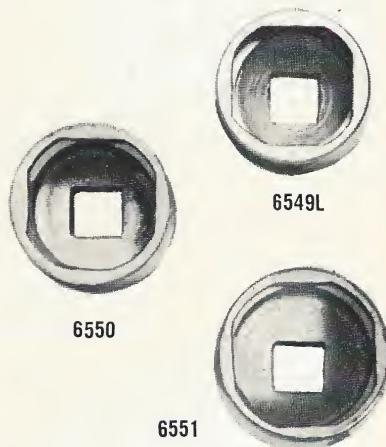
Calibrated in Meter Kilograms.
Turn the handle until calibrations show torque setting desired.
Attach socket and apply to nut or bolt. Pull up to required torque point without hesitation, eyestrain, earstrain or nervous tension. When right torque is reached, the PROTO wrench releases automatically and signals you with its own mechanical action...tells you "when" unmistakably. After removal of handle pressure the wrench resets automatically for the next operation. You can use it in the dark, blind spots, noisy places, on vibrating machinery, under water, in oil, or with heavy gloves on.

No.	Capacity Meter Kilograms	Graduations Meter Kilograms	Square Drive Size	Style of Head
6006M	1-10	0.1	19.525 MM $\frac{3}{8}$ '	Ratchet
6016M	1-20	0.2	12.700 MM $\frac{1}{2}$ '	Ratchet

No.	Maximum Drive End Width	Overall Length	Wt. Lbs.
6006M	35.525 MM $1\frac{3}{8}$ "	35.4 CM $15\frac{1}{2}$ "	1.54
6016M	45.050 MM $1\frac{3}{4}$ "	45 CM $17\frac{3}{4}$ "	2.5

FRONT END TOOLS

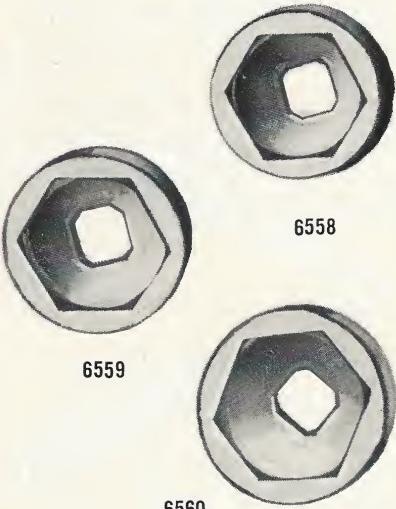
**NOS. 6549L, 6550 AND 6551
BALL JOINT SOCKETS
for Valiant, Dodge,
Plymouth, Chrysler, De Soto**



Ball joint systems on Chrysler products require sockets with special openings. Three different sizes are required.

NO.	CAR	SIZE	LGTH.	WT. LBS.
6549L	Valiant	$1\frac{3}{4}$ "	$3\frac{7}{8}$ "	1.50
6550	Dodge, Plymouth	$1\frac{1}{8}$ "	2"	.92
6551	Chrysler, De Soto	$2\frac{1}{8}$ "	$2\frac{3}{32}$ "	1.00

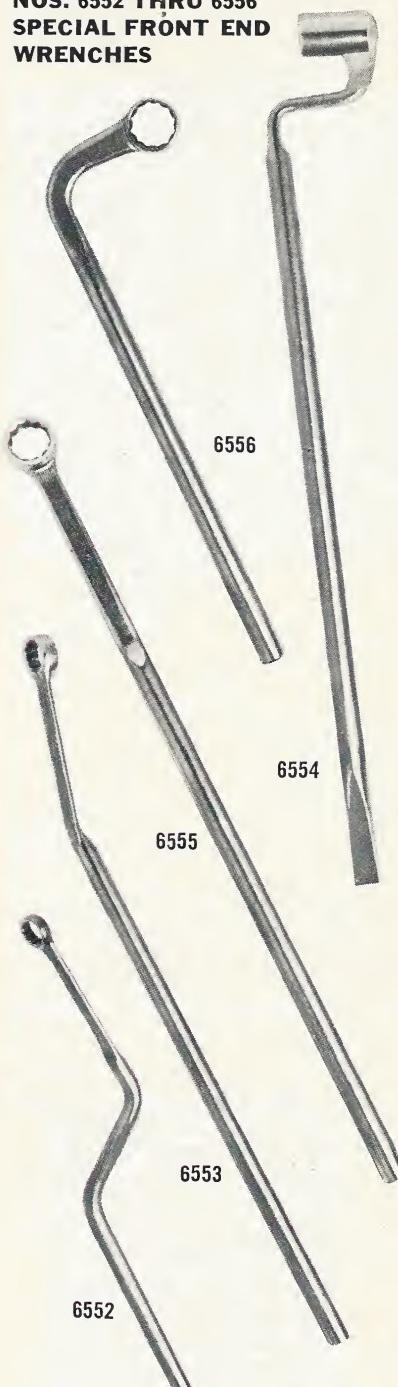
**NOS. 6558, 6559, 6560
BALL JOINT SOCKETS for
BUICK & OLDS**



Ball joint systems of these cars require special sockets. Three different sizes are required.

No.	Car	Size	Wt. Lbs.
6558	BUICK SPEC. & OLDS F-85	$1\frac{1}{16}$ "	.97
6559	BUICK (lower ball joint)	$2\frac{1}{6}$ "	1.35
6560	BUICK (upper ball joint)	$1\frac{1}{8}$ "	1.17

**NOS. 6552 THRU 6556
SPECIAL FRONT END
WRENCHES**



These wrenches are designed for time saving use in front end adjustment. Front wheel nuts and bolts are not easily accessible with standard tools. Special tools with long handles and odd shapes are needed to clear obstructions.

No.	Car	Size	Wt. Lbs.
6552	Corvair	$\frac{9}{16}$ "	.46
6553	Chevrolet, F-85	$1\frac{1}{16}$ "	1.06
6554	Ford, Mercury	$\frac{3}{4}$ "	1.75
6555	Oldsmobile, Buick	$\frac{7}{8}$ "	1.46
6556	Rambler	$1\frac{5}{16}$ "	1.30



NEW TOOLS SUPPLEMENT

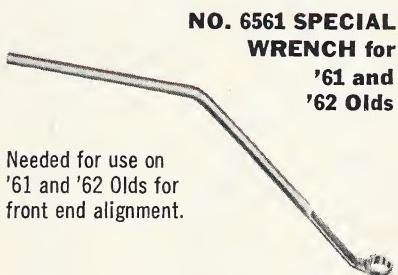
(See Master Catalog For Other Tools)

FRONT END TOOLS (Cont.)



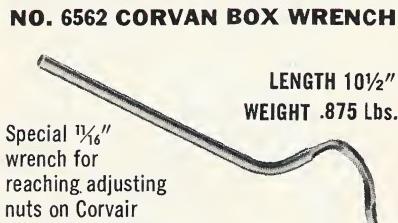
NO. 6557 RATCHETING BOX WRENCH for 1962 Rambler Eccentric Bolt
 $\frac{7}{8}$ " - 12 PT.
Heat-treated steel with accurate broached opening. Nickel chrome finish. Fine tooth ratchet wheel gives new bite every 18°. Turning wrench over reverses direction.

LENGTH	SIZE	WT. LBS.
12"	$\frac{7}{8}$ "	2.0



Needed for use on '61 and '62 Olds for front end alignment.

LENGTH	SIZE	WT. LBS.
19 $\frac{1}{2}$ "	$\frac{13}{16}$ "	1.13



Special $1\frac{1}{16}$ " wrench for reaching adjusting nuts on Corvair Trucks. Special design clears all obstruction for fast easy wheel alignment.

NO. 7402W WHEEL LUG SOCKET WRENCH SET



Socket Wrench No. 7401 with $\frac{3}{4}$ " and $1\frac{1}{16}$ " openings at opposite "flip" ends, and Extension No. 7182P which adapts socket to any standard $\frac{1}{2}$ " drive impact gun. Fits 85% of all cars. Protoly® alloy steel. Double openings hot broached and held to close tolerance. Black finish. Set complete with vinyl plastic kit.

Set Wt. .75 No. 7401 Wt. .44 No. 7182P Wt. .30

NO. 7652 POWER SOCKET ADAPTER



$\frac{1}{2}$ " Female x $\frac{3}{4}$ " Male square drive extra heavy duty impact socket adapter. Length 12 $\frac{1}{2}$ ". Weight .25 lb.



This field kit has all necessary repair parts for Proto ratchets no. 4749 ($\frac{1}{4}$ " square drive), 5249 ($\frac{3}{8}$ " square drive), and 5449 ($\frac{1}{2}$ " square drive), including ratchet wheels, pawls, cams, cover plates, screws, balls, springs and crimp punches. The set is in a strong box with hinged lid, and parts for each wrench are in separate removable compartments. Repair instructions with cut-away diagram are on a card that fits inside the lid.

Wt. 1.43 lbs.

NO. 9661 THRU 9664 REED & PRINCE SCREWDRIVERS PLASTIC HANDLES ROUND SHANKS



For Reed & Prince recessed head screws, now in common use. Similar to Phillips tip but more pointed taper. Heat-treated alloy steel blades are machined to close tolerances and moulded into tough, comfortable shock-proof handles. Will never loosen. 6 per carton.

NO.	SHANK DIAM.	BLADE LENGTH	LENGTH OVERALL	WT. LBS.
9661	$\frac{1}{4}$ "	1"	27 $\frac{1}{8}$ "	.07
9662	$\frac{3}{16}$ "	3"	53 $\frac{1}{8}$ "	.09
9663	$\frac{1}{4}$ "	4"	8"	.17
9664	$\frac{5}{16}$ "	6"	10 $\frac{1}{8}$ "	.30

NO. 9818 18-INCH SCREWDRIVER

Plastic Handle Square Shank



Fine alloy steel blade is heat treated entire length. Handle is large and comfortable, deep fluted for extra gripping power, less slipping, less fatigue. Big diameter permits great palm pressure; long enough to be gripped with both hands. Square shank allows use of wrench for extra turning power.

TIP	SHAPE	SHANK	BLADE	TIP	OVERALL	WT.
STD.	SQUARE	1/2"	18"	5/8"	27"	LBS.

NO. 9996 MACHINIST CHEST



WT. 65 Lbs.

A top quality chest with large compartment in top plus tote tray. Three drawers on easy rollers provide space for sockets, wrenches, and other tools. Partitions and joints spot-welded for sturdiness. Drop-front lid overlaps front of drawers for security, swings back inside lid. Strong tumbler lock. Proto Red.

Dimensions	Length	Width	Height
Chest overall	26"	12"	14"
Tote tray	20 $\frac{7}{8}$ "	8 $\frac{1}{8}$ "	1 $\frac{5}{8}$ "
Top drawer	24 $\frac{1}{4}$ "	10 $\frac{3}{16}$ "	2"
2nd drawer	24 $\frac{1}{4}$ "	10 $\frac{3}{16}$ "	2"
Bottom drawer	24 $\frac{1}{4}$ "	10 $\frac{3}{16}$ "	3 $\frac{1}{4}$ "

C-CLAMPS

100 GS
C-CLAMP
PARTS

Clamp No.	Spindle & Handle	Perma-Pad & Ring
102GS	102A	402P
103GS	103A	403P
104GS	104A	404P
106GS	104A	404P
108GS	104A	404P
110GS	104A	404P
112GS	104A	404P

REGULAR DUTY

†402	*	*	402-P
†403	402-B	403-B	402-P
†404	404-B	404-A	404-P
†406	406-B	406-A	404-P
†408	406-B	406-A	404-P
†410	410-B	410-A	404-P
†412	412-B	412-A	404-P

REGULAR DUTY SPATTER RESISTANT

†402-S	*	*	402-SP
†403-S	402-SB	403-SA	402-SP
†404-S	404-SB	404-SA	404-SP
†406-S	406-SB	406-SA	404-SP
†408-S	406-SB	406-SA	404-SP
†410-S	410-SB	410-SA	404-SP
†412-S	412-SB	412-SA	404-SP

EXTRA DEEP THROAT CLAMPS

424	404-B		404-P
426	406-B		404-P
428	406-B		404-P

EXTRA DEEP THROAT CLAMPS WITH SHIELD

424-S	404-CB		404-CP
426-S	406-CB		404-CP
428-S	406-CB		404-CP

* "A & SA" "V" Type Thread "B & SB" are Acme Type Thread

NORMAL-DUTY PIPE WRENCH PARTS

Wrench No.	Handle & Springs		Jaw	Knurl	Pin for Frame	Frame & Pin	Springs & Rivet for Back	Spring & Rivet for Front
	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.
†806	806H	806J	806K	806P	806PF	.....	806SF	808SF
†808	808H	808J	808K	808P	808PF	.....	810SF	810G
†810	810H	810J	810K	810P	810PF	810SB	814SF	814G
†814	814H	814J	814K	814P	814PF	814SB	818SF	818G
†818	818H	818J	818K	818P	818PF	818SB	824SF	824G
†824	824H	824J	824K	824P	824PF	824SB	.....	.....

SPARE PARTS

JAWS & KNURLS

WRENCH NO.	POLISHED JAW PART NO.	PLATED JAW PART NO.	PLATED KNUURL PART NO.
† 718	718JP	718KP
† 718L	718JP	718KPL

PINS & SPRINGS

WRENCH NO.	THREADED PIN PART NO.	SPRING CYL. PART NO.	SEE NOTE XX TAPERED PIN & HOUR-GLASS SPRG. PART NO.
† 718	718NRH
† 718L	718NRH

NO. 9967 ROLL CAB



Sturdy roller cabinet with four drawers and generous storage compartment with shelf. Reinforced top and front panel. Panel closing bottom compartment slides out of the way under bottom drawer. Four heavy-duty casters, 4" Dia., two swivel (with brakes) and two fixed. Chrome plated drawer pulls and side handles. Cylinder-type key change lock. Drawer suspensions are sturdy and free-sliding. Finished in bright red baked enamel.

Wt. 124 Lbs.



HEAVY-DUTY PIPE WRENCH PARTS

Wrench No.	Handle, Heel Jaw & Pin Assembly		Hook Jaw	Heel Jaw & Pin	Knurl	Flat Spring	Coil Spring
	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.
† 806HD	806A	806B	806C	806D	806E	806G	806G
† 808HD	808A	808B	808C	808D	808E	808G	808G
† 810HD	810A	810B	810C	810D	810E	810G	810G
† 814HD	814A	814B	814C	814D	814E	814G	814G
† 818HD	818A	818B	818C	818D	818E	818G	818G
† 824HD	824A	824B	824C	824D	824E	824G	824G
836HD	836A	836B	836C	836D	836E	836G	836G
848HD	848A	848B	848C	848D	848E	.....	.....



REVERSIBLE RATCHET PARTS



Ratchet No.	Drive Size	Cover	Dog, Left	Dog, Right	Cover Screw	Reversing Assembly	Spring	Wheel w/Plug
Part No.	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.	Part No.
† 4749	1/4"	4749C	4749DL	4749DR	4749R	4749S	4749W	4749W
† 5249	3/8"	5249C	5249DL	5249DR	5249H	5249S	5249W	5249W
† 5449	1/2"	5449C	5449DL	5449DR	5449H	5449R	5449S	5449W
† 5450	5/8"	5449C	5449DL	5449DR	5449H	5449R	5449S	5449W
† 5649	3/4"	5649C	5649DL	5649DR	5649H	5649R	5649S	5649W
5650	3/4"	5649C	5649DL	5649DR	5650H	5650R	5649S	5650W
5848	1"	5848C	5848DL	5848DR	5848H	5848R	5848S	.....
† 5849	1"	5848C	5848DL	5848DR	5848H	5848R	5848S	.....
† 5850	1"	5848C	5848DL	5848DR	5850H	5848R	5848S	.....

*Ratchet No. 5849 has No. 5848W Female Wheel, Ratchet No. 5849 has No. 5848W Female Wheel and No. 5852 Male Plug.

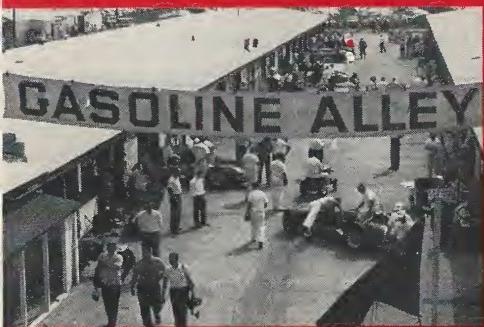
Ratchet No.	Cover Clip	Dog	Dog Ball	Dog Pin	Dog Pin Ring
Part No.	Part No.	Part No.	Part No.	Part No.	Part No.
† 750	4750C	4750D	4750DB	4750DP	4750DPR

Drive Size	Plug	Retaining Ring	Spring	Female Wheel
Part No.	Part No.	Part No.	Part No.	Part No.
1/4"	4750G	4750RR	4750S	4750W

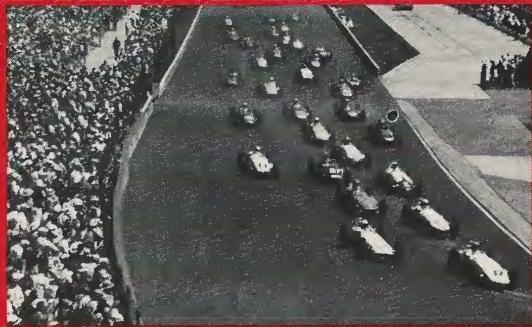
† PRICES FOR PARTS IN PRICE LIST—PR62101

MODEL NO.	PART	LGTH.	WDTH.	HEIGHT
9967	Cab. Ovrl. 2-S Drawers 1 Med. Drawer 1 L. Drawer 1 Shelf	27 1/4" 23 1/8" 23 1/8" 23 1/8" 27"	16 1/8" 16 1/8" 16 1/8" 16 1/8" 12"	32" 17/8" 3" 4 1/8"

PROTO TOOLS SCORE AGAIN AT 1963 INDIANAPOLIS 500 RACE



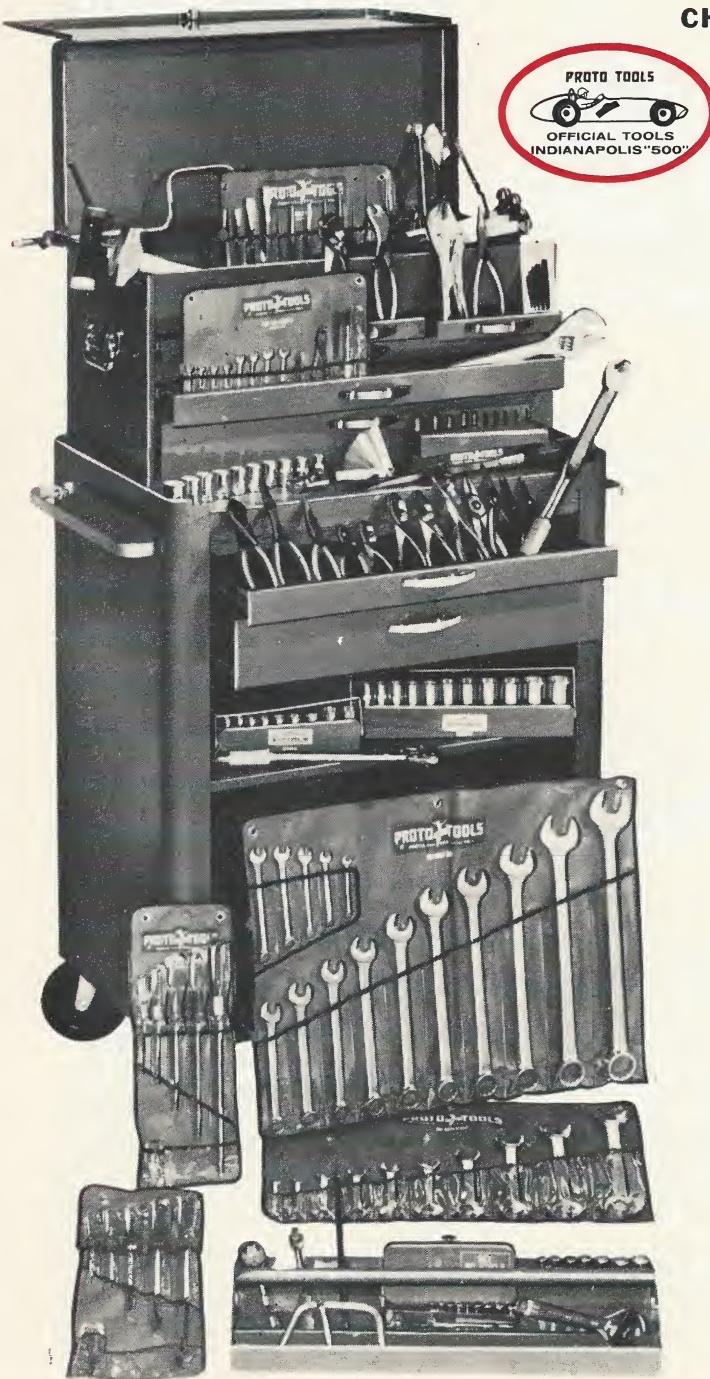
Gasoline Alley, where the "500" mechanics do the sharpest tune-up jobs in the world.



Thirty-three racing cars cross the starting line in one of the most grueling torture tests in the world.



Parnelli Jones and chief mechanic John Poulsen both won "Indy 500" No. 9905 tool sets.



CHOSEN AS THE OFFICIAL TOOLS OF THE "500"

Proto annually sells thousands of tools to the world's top professional auto mechanics through its tool store at the Indianapolis speedway. Each year a set of tools selected to meet the special needs of these mechanics is awarded to the winning mechanic and to the winning driver. This same set, the Indy "500" special, is now a standard item in the Proto line as No. 9905. The finest set of automotive tools ever assembled, it meets the highest demands for efficiency, high quality, appearance and durability.

CONTENTS OF SET NO. 9905

4700B 1/4" Drive Socket Set	9500A Screw Extractor Set
Ratchet	5 sixes of extractors in vinyl plastic kit
Plastic Handle	9600A Phillips Screwdriver Set
Sliding Bar Handle	6 screwdrivers (Plastic Handle) in kit
9 Sockets	9800A Standard Screw Driver Set
7-6 pt. ranging from 7/32" to 7/16" Op.	6 screwdrivers (plastic handles) in kit
2-8 pt. ranging from 1/4" to 5/16" Op.	
Steel Box 6 1/3" x 2 1/4" x 1"	
5200AA 3/8" Socket Set	2 Punch and Chisel Sets
5400AA 1/2" Drive Socket Set	7 Punches, includes: Center, Pin and Starting punches
10-12 pt. sockets, ranging from 7/16" to 1"	5 Chisels, includes: Cape, Diamond Point and Cold chisels in Red vinyl kit
Reversible Ratchet	4900A Hollow Head Socket Set
5" Extension	10 Allen-type sockets
10" Extension	7-3/8" drive for screws 1/8"-3/8"
Hinge Handle	3-1/2" drive for screws 1/2", 9/16" & 5/8"
Universal Joint	6006 3/8" Torque wrench
Speed Handle 16 7/8" Long	6016 1/2 Dr. Torque wrench
1200F Combination Wrench Set	209-G Side Cutters
15 wrenches, ranging from 5/16" to 11/4" in Vinyl Kit	202 Thin nose Pliers
3000H Open End Wrench Set	226-G Needle Nose Pliers
10 wrenches, ranging from 1/4" to 1 1/8" in Vinyl Kit	218-G Battery Pliers
3200C Ignition Wrench Set	227-G Duck Pliers
Ignition gauge set	228-G Chain Nose Pliers
Plier	243 Pliers
Point File 5"	234 Pliers
Screw Driver	291-R Pliers
Screw Starter	275 5" Pliers
8 wrenches, ranging from 13/64" to 11/32" All in Vinyl Kit	276 6" Pliers
000-A Feeler Gauge Set (Standard)	299 Wire Strippers
9 short blades-.003 to .018 in 000C Holder	389 Truarc Pliers
5000A 9/16" Deep Socket Set	391 Truarc Pliers
9-12 pt. sockets, ranging from 9/16" to 7/8" Op.	392 Truarc Pliers
Metal tray	393 Truarc Pliers
5300A 1/2" Deep Socket Set	708-L Click Stop Adjust. Wrench 8"
11 sockets, ranging from 1/2" to 1 1/8" Op.	712-L Click Stop Adjust. Wrench 12"
Metal tray	1304-P Hammer, Ball Peen
	1312-P Hammer, Ball Peen
	1316-P Hammer, Ball Peen
	1431 Brass Hammer
	1384 Shot Loaded Hammer
	2336 Gasket Scraper
	9997 Master Tool Chest
	9967 Roll Cab (See page 87)

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NO. 6018 "TALKING TORQUER"



VERSATILE Compact design facilitates use in cramped and "blind" spots. "Clicking" signal overcomes operator's inability to see around obstacles.

SAFE Proto Torquer has no exposed accessories to cut or bruise. No dials or pointers to obscure vision or encumber use. Handle is knurled and flared to prevent slippage.

FOOLPROOF Automatic limiting action prevents over-torquing or under-torquing... releases exactly as preset on micrometer handle... with graduated settings by 1 ft/lbs. Lock protects against change in setting during use of wrench on job.

RUGGED All steel construction... no glass or plastic dials or other fragile parts to break. No delicate mechanisms. Chrome-plated. Backed by famous Proto warranty.

NO. 345

**LOW CLEARANCE
HACKSAW**

Takes 10" blades.
Weight 1 lb.

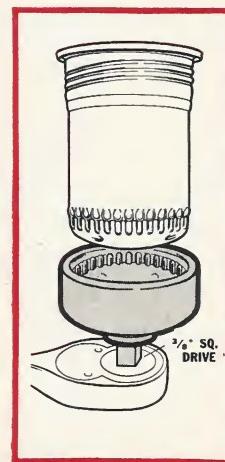
For use when a high frame won't work.
Handle is die cast metal with red baked enamel finish, shaped to fit the hand.



NO. 2303

**FORD
FUEL FILTER
WRENCH**

Wt. .30 lb.



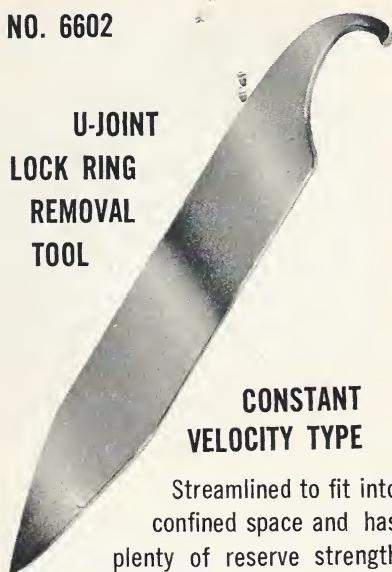
THE WRENCH THAT
ELIMINATES
DAMAGE AND
DISTORTION TO
FUEL FILTER
BOWLS

Makes the Removal of Fuel Filters on Ford products a simple task.

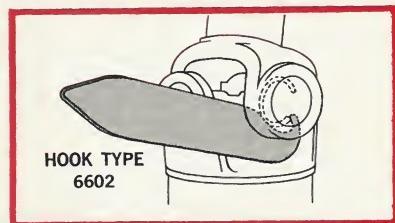
Eliminates the problem of removing the fuel filter bowl in inaccessible areas.

Special socket opening fits knurling on fuel filter bowl. Any $\frac{3}{8}$ " Sq. drive ratchet or attachment used with wrench removes filter bowl with ease.

Die cast from high strength aluminum alloy with a burnished high luster finish.

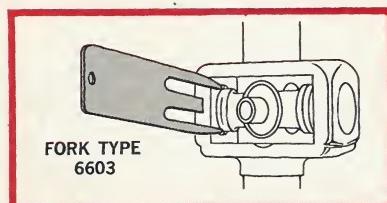
NO. 6602
**U-JOINT
LOCK RING
REMOVAL
TOOL**

**CONSTANT
VELOCITY TYPE**

Streamlined to fit into confined space and has plenty of reserve strength for those hard to remove lock rings.



Engage hook end over one end of "C" type retaining ring, rotate around shaft until lock ring spreads and slips over shaft.

NO. 6603
**U-JOINT
LOCK RING
REMOVAL
TOOL**

**CROSS AND
ROLLER TYPE**


Place prongs of tool over spider shaft so each prong bears against each end of "C" type lock ring. Apply pressure, force lock ring off of shaft.

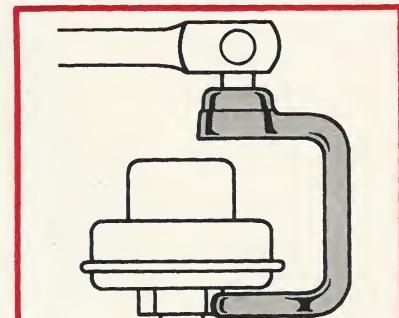
Wt. .25 lb.

NO. 2362
**VACUUM
CONTROL
VALVE
WRENCH**


3/4" OPEN END

Wrench fits over vacuum valve for easy removal or installation. Other tools may damage valve. Time is money . . . Save with this wrench.

The wrench has an accurately broached 3/4" opening, assuring a snug-fit, which prevents the damaging or rounding off of the corners of the soft brass nut on the vacuum control diaphragm.


TRANSMISSION


Use No. 2362 wrench with hinge handle, add 3/8" drive extension where necessary.

**HEX NUT
DRIVERS**



A must for electronics, instruments, automotive, radio and ignition work. Fluted handles of fire-resistant plastic are size coded by colors. Chrome plated hollow steel shafts clear long bolts, reduce weight. Special heat-treated shafts give high wear resistance for use on hardened screws or bolts . . . means longer tool life. Precision formed drive openings fit snugly and hold tight for the life of the tool.


SET NO. 9200M

Includes 5 drivers—Nos. 9202½ to 9205 in heavy-duty kit No. 2427. Wt. 1.44 lbs.

No.	Nominal Opening	Length	Weight
9202½	5/64"	2½"	.16
9203	3/32"	2½"	.16
9203½	7/64"	2½"	.16
9204	1/8"	2½"	.16
9205	5/32"	2½"	.16

NO. 5647



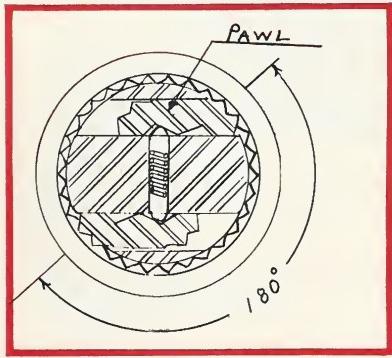
3/4"
**DRIVE
RATCHETOR**

Length 3 3/4" Wt. 2.3

Converts any 3/4" Square drive non-ratcheting handle or attachment to a ratcheting tool. Unique design features two precision broached pawls that engage four opposing teeth in the body.

The "Ratchetor" is a simple, positive device manufactured of heat treated alloy steel throughout to give years of trouble-free service.

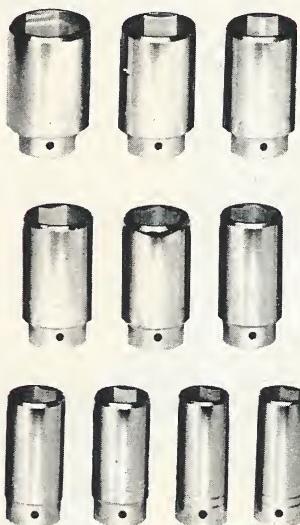
Reversing mechanism is positive and built for years of uninterrupted use. Newly designed for maximum strength. Precision engineered, 30 tooth ratcheting mechanism, allowing operation in 12 degree arc.



NO. 5530HL - 5552HL

3/4" DRIVE DEEP LENGTH SOCKETS

Ten sizes. Packaged: Bulk



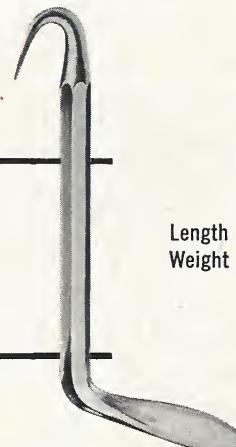
- Deep length for bolt clearance.
- Hex opening for greater power.
- Protoly steel for great toughness.
- Openings hot-broached to close tolerances.
- Polished and chrome plated for rust prevention.

No.	Nominal Opening Size	Inside Clearance	Outside Diameter	Total Lgh.	Wt. Lbs.
5530HL	1 5/16"	1 1/16"	1 3/8"	3 1/2"	.78
5532HL	1"	1 1/16"	1 1/16"	"	.82
5534HL	1 1/16"	25/32"	1 9/16"	"	.97
5536HL	1 1/8"	25/32"	1 5/8"	"	1.04
5540HL	1 1/4"	29/32"	1 3/4"	"	1.16
5542HL	1 5/16"	15/16"	1 7/8"	"	1.30
5544HL	1 3/8"	1"	1 15/16"	"	1.40
5546HL	1 7/16"	1 1/16"	2"	"	1.42
5548HL	1 1/2"	1 1/16"	2 1/16"	"	1.52
5552HL	1 5/8"	1 3/16"	2 1/4"	"	1.78

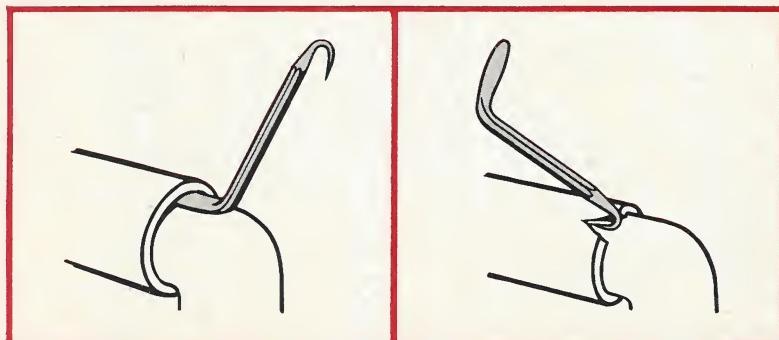
NO. 2307
HOSE RIPPER TOOL

**QUICK EASY
RADIATOR HOSE
SERVICE**

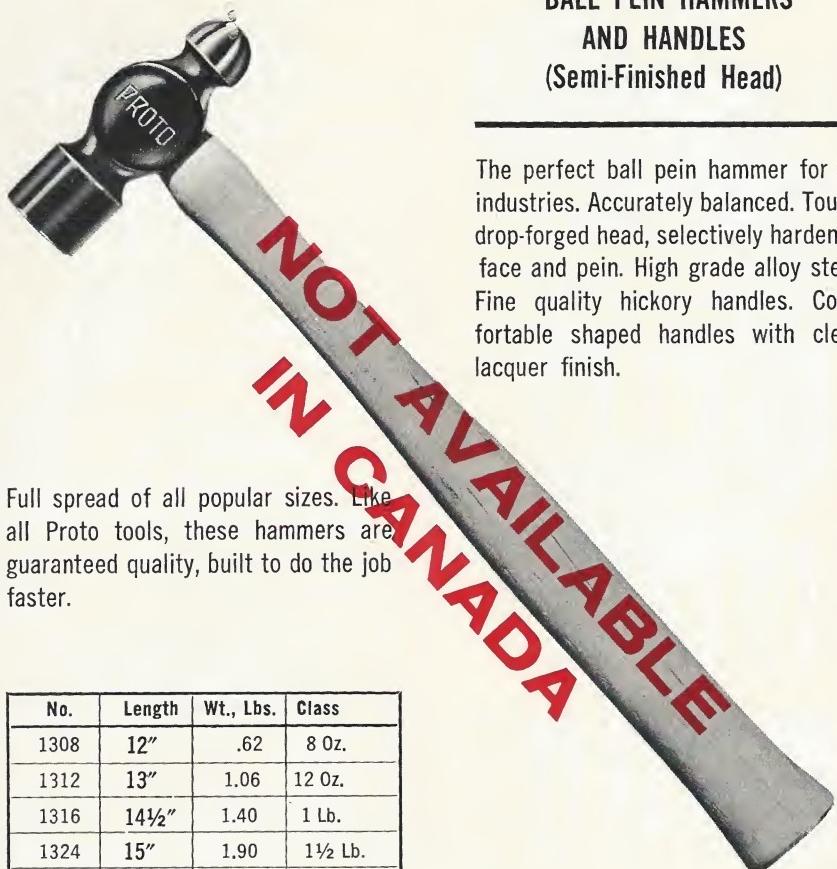
Length 6"
Weight20 lbs.



Hundreds of other uses—to pry, pull, rip, tear and twist.



NO. 1308

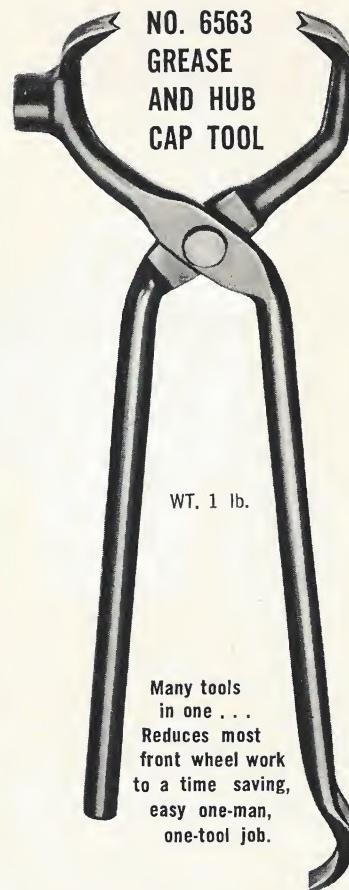


Full spread of all popular sizes. Like all Proto tools, these hammers are guaranteed quality, built to do the job faster.

No.	Length	Wt., Lbs.	Class
1308	12"	.62	8 Oz.
1312	13"	1.06	12 Oz.
1316	14½"	1.40	1 Lb.
1324	15"	1.90	1½ Lb.
1332	15⅞"	2.32	2 Lb.

BALL PEIN HAMMERS AND HANDLES (Semi-Finished Head)

The perfect ball pein hammer for all industries. Accurately balanced. Tough drop-forged head, selectively hardened face and pein. High grade alloy steel. Fine quality hickory handles. Comfortable shaped handles with clear lacquer finish.



WT. 1 lb.

Many tools
in one . . .
Reduces most
front wheel work
to a time saving,
easy one-man,
one-tool job.

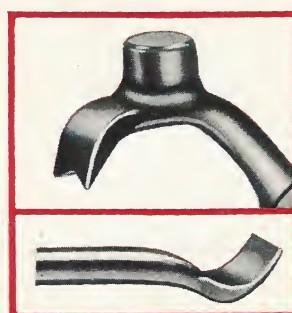
A Proto EXTRA . . . Features a built in hammer head of the necessary weight to easily replace grease caps.

Forged alloy steel properly heat treated assures a tough long lasting tool. Tapered and V cut jaws of the tool fit around and behind crimped ridge of the grease cap to provide firm wedging grip that easily removes the tightest hub cap. Solid rivet joint keeps jaws in proper alignment throughout the long life of this Proto guaranteed tool. Black oxide finish provides long lasting protection from rust or corrosion.



NO. 272 7" END NIPPER

A tool of many uses; to cut wire and thin sheet metal by professional mechanics, electricians, plumbers and sheet metal workers. Also an important tool to the farmer or "Do-it-yourself" fans in work around the house, on fences as it requires minimum handle pressure for accurate easy cutting. Manufactured of hot forged alloy steel.

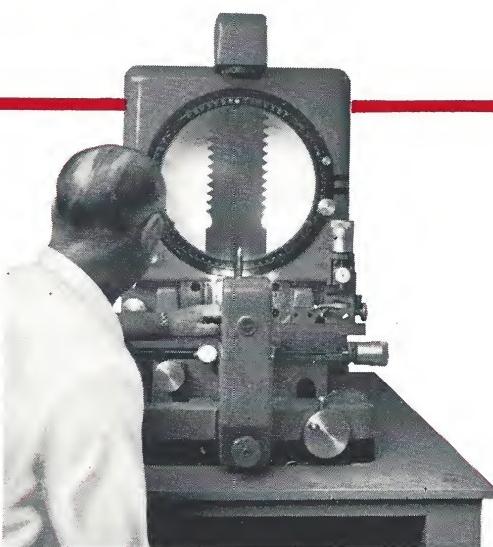


One handle designed with curved chisel edge that fits behind the wheel cover or hub cap for fast, easy damage-free removal.

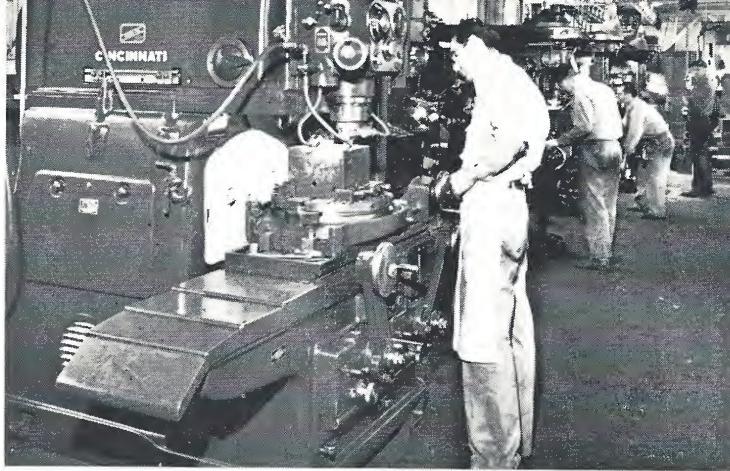


MODERN MANUFACTURING METHODS

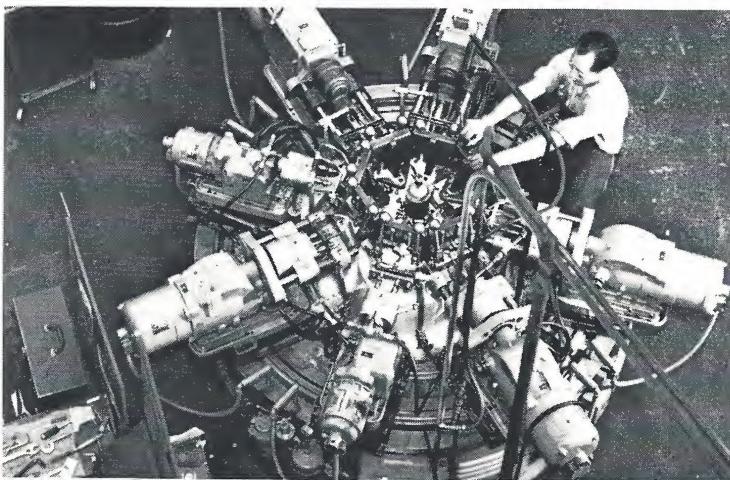
More than a half-century ago when PROTO tools were made in a small blacksmith shop, their professional quality was due to *skilled workmanship*. This continues to be the reason for PROTO'S leadership in the industry. In operations where machines can save time and money, and *improve quality*, PROTO uses the most efficient precision automatic machinery.



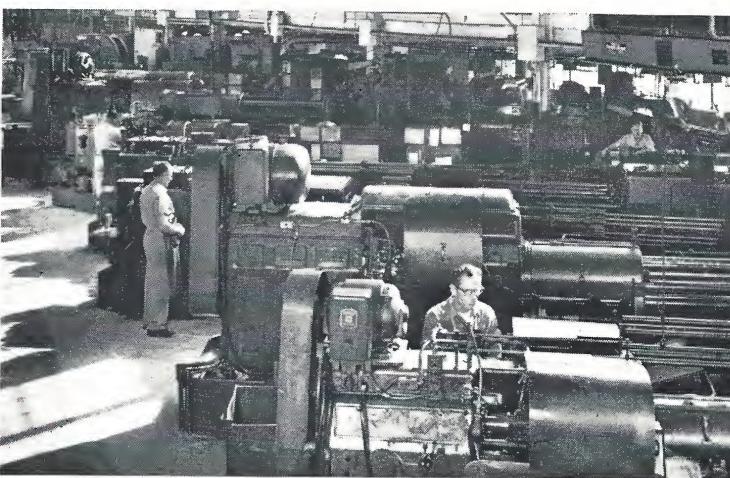
This contour projector is typical of the quality control equipment used by PROTO.



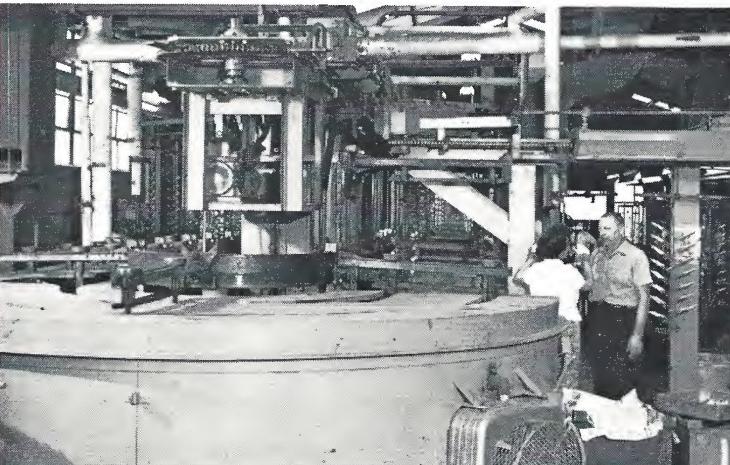
Modern milling machines in PROTO die sinking department.



Automated, precision machines keep quality up and cost down.



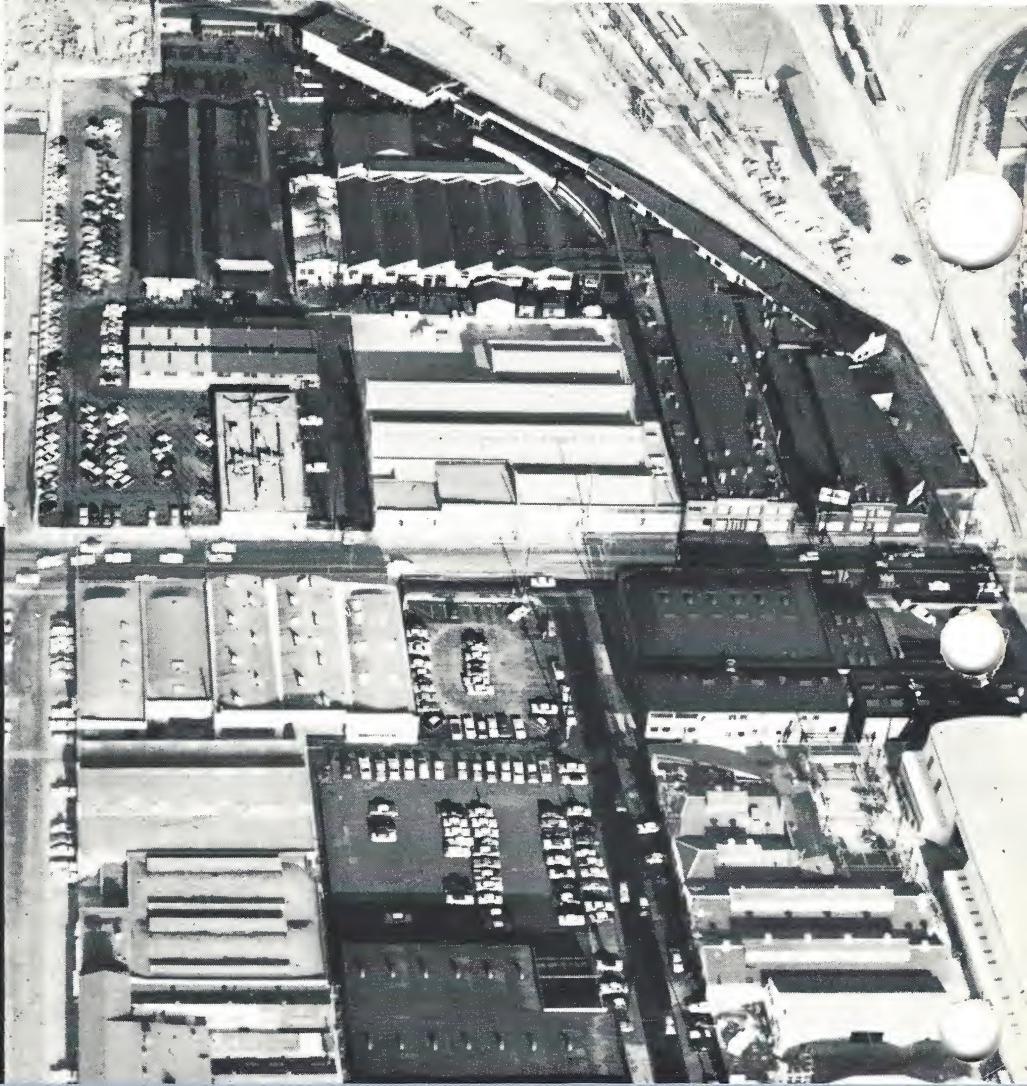
Section of automatic screw machine department at main plant.



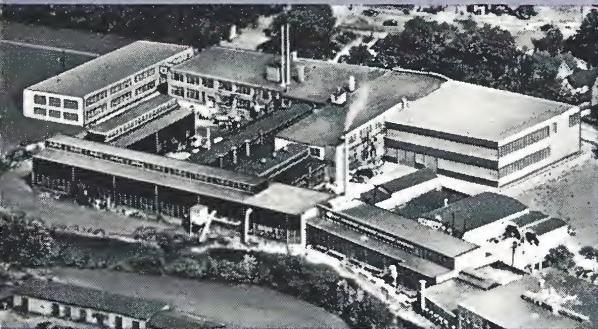
PROTO plates its own tools in this huge plating system.

PROTO[®]

NATION-WIDE
MANUFACTURING
FACILITIES



Los Angeles, California, Factory and Main Offices



Jamestown, N.Y., Factory and Eastern Warehouse



London, Ontario, Factory (PROTO TOOLS OF CANADA, Ltd.)



Los Angeles, California, Special Tools Factory (ITM)

Since the firm was established in 1907 the demand for professional quality PROTO tools has increased until PROTO has become a world leader in its field. This professional quality and continually growing popularity of PROTO tools is due in large measure to the skilful workmanship and teamwork of PROTO employees, salesmen, alert distributors and dealers throughout North America and abroad.



PROTO TOOL COMPANY

DIVISION OF PENDLETON TOOL INDUSTRIES, INC.

Los Angeles, California 90054



CATALOG NO. PR62120A
& CATALOG NO. PR62120B